

Case 3602***Coenosia* Meigen, 1826 and COENOSIINAE Verrall, 1888 (Insecta, Diptera, MUSCIDAE): proposed conservation of usage of the genus-group and family-group names**

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Abstract. The purpose of this application, under Articles 70.2 and 23.9.3 of the Code, is to conserve the current usage of the generic name *Coenosia* Meigen, 1826, for a well-established genus of muscid flies. The type species of *Coenosia* has long been assumed to be *Musca tigrina* Fabricius, 1775. However, the correct type species is *Musca fungorum* De Geer, 1776, which is currently recognized as a valid species of *Mycophaga* Rondani, 1856, a genus of anthomyiid flies. Acceptance of *Musca fungorum* De Geer, 1776 as the type species of *Coenosia* would change the current concept of that genus to that of the anthomyiid *Mycophaga*, and the current muscid generic name *Coenosia* would become *Caricea* Robineau-Desvoidy, 1830 as the next available name. To avoid the nomenclatural instability that would result from following the Principle of Priority, it is proposed that all type fixations for *Coenosia* Meigen, 1826 prior to that of *Musca tigrina* Fabricius, 1775 by Westwood (1840) be set aside. In addition, it was noted that, because the genus-group names *Coenosia* Meigen, 1826 and *Limosia* Robineau-Desvoidy, 1830 have long been considered subjective synonyms of each other and are the type genera for respective family-group names, if the Principle of Priority were followed, the family-group name LIMOSIINAE Robineau-Desvoidy, 1830 would become the senior synonym of COENOSIINAE Verrall, 1888. To avoid the potential instability resulting from acceptance of the relative priority of these two family-group names, it is proposed that precedence be given to COENOSIINAE OVER LIMOSIINAE whenever the two are placed in the same family group.

Keywords. Nomenclature; taxonomy; Diptera; MUSCIDAE; *Coenosia*; *Musca tigrina*; *Musca fungorum*; *Mycophaga*; COENOSIINAE; LIMOSIINAE; muscid flies; cosmopolitan.

1. Meigen (1826, p. 210) proposed the generic name *Coenosia* for 28 new species: *Musca fungorum* De Geer, 1776, *Musca tigrina* Fabricius, 1775 (with *Musca quadrum* Fabricius, 1805 in synonymy), *Coenosia nemoralis* Meigen, 1826, *Musca rufina* Fallén, 1825, *Coenosia sexnotata* Meigen, 1826, *Musca verna* Fabricius, 1794, *Musca intermedia* Fallén, 1825, *Coenosia murina* Meigen, 1826, *Coenosia nigrimana* Meigen,

1826, *Coenosia means* Meigen, 1826, *Musca pedella* Fallén, 1825, *Coenosia nigra* Meigen, 1826, *Coenosia ambulans* Meigen, 1826, *Coenosia minima* Meigen, 1826, *Coenosia punctum* Meigen, 1826, *Coenosia albipalpis* Meigen, 1826, *Coenosia decipiens* Meigen, 1826 (as ‘*Coen. decipiens*. Wied.’), *Coenosia perpusilla* Meigen, 1826, *Musca meditata* Fallén, 1825, *Musca geniculata* Fallén, 1825, *Coenosia albicornis* Meigen, 1826, *Coenosia punctipes* Meigen, 1826, *Coenosia humilis* Meigen, 1826, *Coenosia simplex* Meigen, 1826, *Musca pumila* Fallén, 1825, *Coenosia rufipalpis* Meigen, 1826, *Coenosia monilis* Meigen, 1826, and *Musca myopina* Fallén, 1825. A type species was not designated.

2. Drapiez (1837, p. 532) designated *Musca fungorum* De Geer, 1776 as the type species of *Coenosia*. This designation has been overlooked by subsequent authors and is the earliest subsequent designation of an originally included species.

3. Westwood (1840, p. 143) designated *Musca tigrina* Fabricius, 1775 (p. 779) as the type species of *Coenosia* (as ‘*Caenosia*’). The universally accepted concept of *Coenosia* is based on this type species designation. The type species designations in Westwood’s *Synopsis of the genera of British insects* were accepted as valid in Opinion 71 (I.C.Z.N., 1922, p. 16). Westwood (1840, p. 143) also listed *Musca tigrina* as included in *Caricea* Robineau-Desvoidy, 1830; this does not constitute a valid type designation (*M. tigrina* was not an originally included species in *Caricea*), but it could be interpreted as a synonymization of *Caricea* with *Coenosia*.

4. Robineau-Desvoidy (1830, p. 528) proposed the family-group name LIMOSELLAE (stem corrected to LIMOSI-) based on the type genus *Limosia* Robineau-Desvoidy, 1830. An earlier proposal of ‘LIMOSELLAE’ by Robineau-Desvoidy in Blainville (1826, p. 12) occurred in a work that was suppressed by the Commission in Opinion 1601 (BZN 47: 162; June 1990).

5. Verrall (1888, p. 24) proposed the family-group name COENOSINAE (stem corrected to COENOSI-) based on the type genus *Coenosia* Meigen, 1826.

6. *Coenosia* Meigen, 1826 is a widespread genus of MUSCIDAE Latreille, 1802 occurring in all world zoogeographic realms. It is the type genus of the family-group taxon COENOSIINAE Verrall, 1888 (p. 24) (Sabrosky, 1999), and, according to different estimates, contains some 560 to 680 species-group names (Bisby et al., 2011; Pape & Thompson, 2010). Recent catalogues of Diptera record *Coenosia* as a taxonomically valid genus occurring in the Nearctic (e.g. Hockett, 1965; Poole, 1996), Neotropical (e.g. Carvalho et al., 2005), Oriental (e.g. Pont, 1977), Afrotropical (e.g. Pont, 1980), Australasian/Oceanian (e.g. Pont, 1989), and Palearctic (e.g. Pont, 1986) regions.

7. In researching subsequent type-species designations of Diptera genus-group names, an earlier designation was found for *Coenosia* by Drapiez (1837), who designated *Musca fungorum* De Geer, 1776, the first of the 28 originally included species. Nomenclatural instability would result from the adoption of *Musca fungorum* as the type species of *Coenosia* as designated by Drapiez (1837). *Musca fungorum* is currently treated (as a senior, but invalid synonym [preoccupied by *Musca fungorum* Scopoli, 1763] of *Coenosia testacea* Gimmerthal, 1834) in the genus *Mycophaga* Rondani, 1856 in the ANTHOMYIIDAE Latreille, 1829 (e.g. Dely-Draskovits, 1993). Acceptance of *M. fungorum* as the type species of *Coenosia* would result in the subjective synonymy of *Coenosia* and *Mycophaga*, with *Coenosia* having priority. The genus currently known as *Mycophaga* would take the name *Coenosia* (with *Mycophaga* in subjective synonymy). The genus currently known as *Coenosia*

would become *Caricea* Robineau-Desvoidy, 1830 (the next available name currently in synonymy with *Coenosia*).

8. Research conducted in the preparation of this case revealed that, because the genus-group names *Coenosia* Meigen, 1826 and *Limosia* Robineau-Desvoidy, 1830 have long been considered subjective synonyms of each other (e.g. Macquart, 1835; Stein in Bezzi & Stein, 1907; Hennig, 1961) and are the type genera for respective family-group taxa, if the Principle of Priority were followed, the family-group name LIMOSIINAE Robineau-Desvoidy, 1830 (stem spelling corrected from original proposed as 'LIMOSELLAE') would become the senior synonym of COENOSIINAE Verrall, 1888 (originally proposed as 'COENOSINAE'). Acceptance of the relative priority of these two family-group names would upset the stability of nomenclature and taxonomy of the long-established name COENOSIINAE by replacing it with the lesser-known LIMOSIINAE. Unfortunately, LIMOSIINAE cannot be dealt with by Article 23.9.1 because the name was treated as a name for a valid taxon after 1899 when Sabrosky (1999, p. 95) stated that LIMOSELLAE Robineau-Desvoidy, 1830 has priority over COENOSINAE Verrall, 1888 and (p. 178) treated it as a valid name. Aside from the treatment of LIMOSELLAE as valid in Sabrosky (1999), no family-group name proposed by Robineau-Desvoidy (1830) based on *Limosia* Robineau-Desvoidy, 1830 has been used as a name for a valid taxon since Lioy (1864). In contrast, COENOSIINAE has been in wide use as a name for a valid taxon in more than 25 works by 10 different authors in the last 50 years, including the major catalogue references listed in (6) above. A full list of these works is kept with the Commission Secretariat. A pragmatic solution to the problem of priority of these two names would be to give precedence to COENOSIINAE over LIMOSIINAE whenever the two are placed in the same family group.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power:

(a) to set aside all type species fixations for the nominal genus *Coenosia* Meigen, 1826 before that of *Musca tigrina* Fabricius, 1775 by Westwood (1840);

(b) to give precedence to the family-group name COENOSIINAE Verrall, 1888 over LIMOSELLINAE Robineau-Desvoidy, 1830 whenever the two are placed in synonymy in the same family group;

(2) to place on the Official List of Generic Names in Zoology the name *Coenosia* Meigen, 1826 (gender: feminine), type species *Musca tigrina* Fabricius, 1775 by subsequent designation by Westwood (1840) as ruled in (1) above;

(3) to place on the Official List of Specific Names in Zoology the name *tigrina* Fabricius, 1775 as published in the binomen *Musca tigrina* (specific name of the type species of *Coenosia* Meigen, 1826);

(4) to place on the Official List of Family Names in Zoology the name COENOSIINAE Verrall, 1888 (type genus: *Coenosia* Meigen, 1826) with the endorsement that it is to be given precedence over LIMOSELLINAE Robineau-Desvoidy, 1830 whenever the two are placed in synonymy in the same family group;

(5) to place on the Official List of Family Names in Zoology the name LIMOSELLINAE Robineau-Desvoidy, 1830, with the endorsement that it is not to be given priority over COENOSIINAE Verrall, 1888 whenever the two are placed in synonymy in the same family group.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).